

Epidemiology Update

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Seasonal Influenza (FLU) Seasonal Influenza (FLU) Seasonal Influenza (FLU)

Influenza is an acute infectious viral disease of the respiratory tract that is characterized by fever, headache, weakness, congestion and/or inflammation of the mucus membranes in the upper respiratory tract, sore throat, and cough. Flu manifestations range from mild and self limited in most patients with recovery in 2 to 7 days to severe life-threatening, especially among high-risk populations, including the elderly, immuno-compromised, and young children.

Annually in the United States, five percent to 20 percent of the population gets the flu, with more than 200,000 people requiring hospitalization and 36,000 deaths, according to the Centers for Disease Control and Prevention (CDC).

Based solely on clinical symptoms, influenza can be difficult to diagnose because it manifests similar to other conditions caused by agents such as adenovirus, rhinovirus, parainfluenza virus, and *Mycoplasma pneumoniae*. Influenza diagnostic tests may include: viral culture, serology (blood) rapid antigen testing, polymerase chain reaction (PCR), and immunofluorescence assays. Typically, nasopharyngeal specimens are more effective than throat swabs specimens for viral isolation and rapid detection. Commercial rapid diagnostic tests can detect influenza viruses within 30 minutes, but do not provide the specificity and sensitivity of viral culture. Rapid tests can detect different types of influenza including:

- Influenza A viruses only
- Both influenza A and B viruses, without distinguishing between the two types
- Both influenza A and B with the capability to distinguish between the two types

Most influenza cases are not seen by a clinician. Appropriate treatment of persons with influenza depends on timely and accurate diagnosis. Treatment for severe influenza cases may include antiviral medications such as Zanamivir and Oseltamivir.

November 2007

*Nevada State
Health Division*

SURVEILLANCE

Influenza surveillance is primarily based on diagnosis and monitoring reports of laboratory-confirmed influenza, in addition to the ongoing syndromic surveillance, which tracks influenza-like illnesses (ILI) and conditions that do not have laboratory confirmation. The case definition for ILI is having a fever that is greater than or equal to 100°F, cough and/or sore throat that are known not to be caused by other illnesses. It is important to mention that laboratory-confirmed cases of influenza are only those cases that were confirmed by a laboratory test and subsequently reported to a health authority. It is essential to mention that the number of laboratory-confirmed influenza cases does not represent the actual number of cases which is usually much higher. Laboratory confirmation is most useful to provide information on circulating strains and subtypes of influenza. During the 2005 flu season (October 2005 through May 2006) Nevada had 719 laboratory-confirmed cases and 657 were reported during the

2006 flu season. Nationally, in the 2006 flu season, about 79 percent of the flu specimens submitted to CDC were Influenza A, and only 21 percent were Influenza B. Similar proportions were observed also in Nevada during that flu season.

Currently, there are 60 sentinel surveillance sites, which include hospitals, community clinics, correctional facilities and private physicians, distributed around the state that report weekly on influenza activity and ILI to the Nevada State Health Division's Office of Epidemiology.

Nationally, peak flu activity usually occurs between December and March. During the 2005 and 2006 seasons, flu peaked in Nevada late in December and February and early in March. While the seasonality of each flu season is highly predictable, estimating the severity is very unreliable. Although the 2006 flu season was considered a relatively mild in Nevada, it is too early to accurately predict the severity of this current season.

Carson City

(775) 887-2190

www.flurevolution.com

Churchill County

(775) 423-4434

<http://health.nv.gov>

Clark County

(702) 759-1000

www.flurevolution.com

Douglas County

(775) 782-9038 or

(775) 586-7235

<http://health.nv.gov>

Elko County

(775) 738-5850

www.nvrhc.org/elko.htm

Esmeralda County

(775) 482-6659

<http://health.nv.gov>

Eureka County

(775) 237-5313

www.nvrhc.org/eureka.htm

Humboldt County

(775) 623-6575

<http://health.nv.gov>

Lander County

(775) 635-2386 or

(775) 635-1109

<http://health.nv.gov>

Lincoln County

(775) 726-3123

<http://health.nv.gov>

Lyon County

(775) 351-1301 (Fernley)

(775) 246-6211 (Dayton)

(775) 577-5016

(Silver Springs)

(775) 577-5039 (Yerington)

<http://health.nv.gov>

Mineral County:

(775) 945-3657

or (775) 945-3658

<http://health.nv.gov>

Nye County:

(775) 751-7070

or (775) 482-6659

<http://health.nv.gov>

Pershing County:

(775) 273-2041

<http://health.nv.gov>

Storey County

(775) 684-4200

<http://health.nv.gov>

Washoe County

(775) 328-3724

www.flurevolution.com

White Pine County

(775) 289-2107

<http://health.nv.gov>

Need a Flu Shot?
Call or email



Prevention and Immunization

Flu viruses primarily spread from infected persons through coughing and sneezing. And, according to CDC, individuals who contract the flu start spreading the virus one day before the onset of symptoms. Annual population-based vaccination is the most effective way to decrease the heavy burden of season flu at the community level, and to reduce the individual risk of contracting the virus. Currently, influenza immunization is available in two forms:

1. Intramuscular Injections or Flu Shots in the upper arm. Flu shots do not contain live viruses and are now approved for children aged six months and older.
2. Nasal Spray Vaccine contains weakened live flu viruses and it is approved for use in healthy individuals aged 2 to 49 who are not pregnant.

Each year October marks the beginning of the flu season and is typically the month of choice for getting immunized as recommended, especially for those at high-risk for contracting the flu and developing complications. However, individuals who didn't get their vaccine in October can still get immunized in November and December.

High-risk populations include:

- Children aged 6 months to 5 years old
- Pregnant women

- People 50 years of age and older
- People of any age with certain chronic medical conditions (e.g. HIV, cancer , diabetes, and chronic obstructive pulmonary diseases)
- People who live in nursing homes and other long term care facilities

In recent years, health care providers, household contacts, and caregivers of high-risk persons have been added to this list. More than 100 million doses of the flu vaccine will be available during the 2007 flu season nationwide. With such plentiful supplies, individuals who wish to reduce their risk of contracting influenza should discuss their options and benefits with their private health care providers.

Compared to the national average, Nevada rates of adults aged 65 years and older who received flu vaccines in 2006 season were relatively low. The Nevada State Health Division is actively working with state partners and stakeholders and with local county immunization coalitions in order to improve these rates. Numerous flu immunization clinics that are geared to serve "pockets of need" and high-risk persons are planned for the current flu season.

The 2007-2008 recommendations from the National Advisory Committee on Immunization Practice (ACIP) include six principal changes/updates:

1. All children aged 6 months to 8 years should have two doses of vaccine administered if they have not been previously vaccinated.
2. All children aged 6 months to 8 years who received only 1 dose in their first year of vaccination should receive 2 doses the following year.
3. All persons, including school-aged children, and those who want to reduce the risk of getting/transmitting influenza, should be vaccinated.
4. Immunization providers should offer influenza vaccine and schedule immunization clinics throughout the season.
5. Health care administrators should consider the level of vaccination coverage among health care personnel (HCP) to be one measure of a patient safety quality program and implement policies to encourage HCP vaccination (e.g., obtaining signed statements from HCP who decline influenza vaccination).
6. The 2007–2008 trivalent vaccine strains are:
 - A/Solomon Islands/3/2006 H1N1-like (new for this season)
 - A/Wisconsin/67/2005 H3N2-like
 - B/Malaysia/2506/2004-like viruses.

There are simple ways to further avoid contracting or spreading the flu, and good health habits include:

- Getting vaccinated each season
- Avoiding close contact with persons who are sick
- Covering mouth and nose with sleeve or a clean tissue when coughing or sneezing
- Washing hands often and using alcohol-based hand sanitizer when hand-washing is not available
- Avoid touching your eyes, nose, or mouth
- Staying at home and getting plenty of bed rest when sick
- Seeking medical attention, if needed

